

Title (en)  
METALLISIED SECURITY ELEMENT

Title (de)  
METALLISIERTES SICHERHEITSELEMENT

Title (fr)  
ELEMENT DE SECURITE METALLISE

Publication  
**EP 1786632 B1 20091223 (DE)**

Application  
**EP 05778617 A 20050829**

Priority  
• EP 2005009287 W 20050829  
• DE 102004042136 A 20040830

Abstract (en)  
[origin: US2008094713A1] The invention concerns a security element ( 11 ) in the form of a multi-layer film body, a security document having such a security element and a process for the production of such a security element. The film body on a carrier film ( 10 ) has a release layer ( 20 ), a protective lacquer layer ( 21 ), a replication lacquer layer ( 22 ) with relief structures ( 25, 26 ), a metal layer ( 23 ) and an adhesive layer ( 24 ). A first relief structure ( 25 ) has a depth-to-width ratio of >0.5, whereby the metal layer ( 23 ) is more transparent in the region of the first relief structure ( 25 ). A second relief structure ( 26 ) has a low depth-to-width ratio whereby the metal layer ( 23 ) is less transparent or is opaque in the region of the second relief structure ( 26 ).

IPC 8 full level  
**B42D 15/10** (2006.01)

CPC (source: BR EP KR US)  
**B42D 25/00** (2014.10 - EP US); **B42D 25/324** (2014.10 - EP KR US); **B42D 25/373** (2014.10 - BR US); **B42D 25/45** (2014.10 - KR); **G03H 1/0011** (2013.01 - EP US); **G03H 1/0244** (2013.01 - EP US); **B42D 25/00** (2014.10 - BR); **B42D 25/324** (2014.10 - BR); **B42D 2033/24** (2022.01 - EP); **G03H 1/0011** (2013.01 - BR); **G03H 1/0244** (2013.01 - BR); **G03H 2001/184** (2013.01 - EP US)

Cited by  
DE102014011425A1; WO2016015828A1; US10682878B2; EP2821242A1; DE102013009972A1; EP3427968B1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2008094713 A1 20080424**; **US 7907339 B2 20110315**; AT E452770 T1 20100115; AU 2005279328 A1 20060309; AU 2005279328 B2 20100325; BR PI0514730 A 20080624; BR PI0514730 B1 20190625; CA 2578377 A1 20060309; CA 2578377 C 20121218; CN 100506561 C 20090701; CN 101035686 A 20070912; DE 102004042136 A1 20060309; DE 102004042136 B4 20061109; DE 502005008757 D1 20100204; DK 1786632 T3 20100426; DK 1786632 T4 20200907; EP 1786632 A2 20070523; EP 1786632 B1 20091223; EP 1786632 B2 20200722; ES 2338675 T3 20100511; JP 2008511847 A 20080417; JP 5124272 B2 20130123; KR 101287749 B1 20130719; KR 20070053309 A 20070523; NO 20071382 L 20070530; PL 1786632 T3 20100630; PL 1786632 T5 20210208; PT 1786632 E 20100318; RU 2007111721 A 20081010; RU 2379193 C2 20100120; SI 1786632 T1 20100430; WO 2006024478 A2 20060309; WO 2006024478 A3 20060526

DOCDB simple family (application)  
**US 66148705 A 20050829**; AT 05778617 T 20050829; AU 2005279328 A 20050829; BR PI0514730 A 20050829; CA 2578377 A 20050829; CN 200580034377 A 20050829; DE 102004042136 A 20040830; DE 502005008757 T 20050829; DK 05778617 T 20050829; EP 05778617 A 20050829; EP 2005009287 W 20050829; ES 05778617 T 20050829; JP 2007528758 A 20050829; KR 20077007183 A 20050829; NO 20071382 A 20070315; PL 05778617 T 20050829; PT 05778617 T 20050829; RU 2007111721 A 20050829; SI 200530931 T 20050829